

Purpose

The purpose of winter storm maintenance is to furnish the Utah Department of Transportation (UDOT) maintenance stations with guidelines, that should provide reasonable levels of service to the public throughout the state during a typical winter storm event. During unusual or extreme winter conditions, the maintenance stations will provide normal services as soon as available resources permit.

Actual plow routes and equipment assignments are determined by the region operations/maintenance/district engineers using the winter storm maintenance standards. Anti-icing strategies may be developed and implemented using available road weather information systems (RWIS) and weather forecasts, in combination with accepted anti-icing techniques.

Policy

It is the policy of UDOT to provide an appropriate level of service on state routes based on available resources, roadway type, route elevation, and annual average daily traffic (AADT).

The following priorities describe the effort and conditions that shall be provided on state roads during a storm event. A highway's priority may be raised or lowered based on its importance to commerce, school bus routes, and proximity to population centers. Lower elevations are those less than 7500 feet.

Priority 1

The primary objective is to keep at least one travel lane in each direction open to traffic and to provide intermittently a bare pavement as soon as practical. Exceptions may be when blizzard, avalanche, or other severe forms of weather make conditions such that maintenance and motor vehicle operators cannot reasonably negotiate the roadway. Snow plowing, sanding, anti-icing, and de-icing may continue after the storm to achieve an intermittent bare pavement in the primary travel lane. Remaining travel lanes and shoulders should be cleared as soon as conditions and available resources permit.

Typical Affected Roadways: All UDOT maintained urban routes with an AADT in excess of 10,000 vehicles per day (vpd), and all UDOT maintained interstate highways.

Coverage Time: Snow plowing, sanding, chemical anti-icing and deicing operations may be eligible to receive up to 24 hours per day coverage during a winter storm event.

Priority 2

The primary objective is to keep one travel lane in each direction open to traffic as soon as practical. Exceptions may be when blizzard, avalanche, or other severe forms of weather make conditions such that maintenance and motor vehicle operators cannot reasonably negotiate the roadway. The remaining lanes and shoulders should be cleared as soon as conditions and available resources permit.

Typical Affected Roadways: All UDOT maintained roadways except those defined in Priority 1, in lower elevations with AADT's between 10,000 vpd, and 50,000 vpd, and in higher elevations with AADT's in excess of 10,000 vpd.

Coverage Time: Snow plowing, sanding, chemical anti-icing and deicing operations may be eligible to receive up to 19 hours per day coverage during a winter storm event. State Roads to winter recreation areas with winter ADTs greater than 4500 vpd are eligible to receive up to 24 hours per day coverage during a winter storm event.

Priority 3

The primary objective is to keep one lane in each direction open to traffic as soon as practical. In canyon areas, the road may be closed to traffic during avalanche control or snow removal operations. Snow packed and/or icy conditions are acceptable, but may be treated with abrasives or abrasive/chemical combinations. Plowing/removal of any snow pack or icy surfaces, widening of the travel way, and clearing of shoulders should be accomplished during regularly scheduled work hours.

Typical Affected Roadways: All UDOT maintained roadways with AADT's greater than 1,000 vpd and less than 10,000 vpd, excluding interstates.

Coverage Time: Snow plowing, sanding, chemical anti-icing and deicing operations may be eligible to receive up to 17 hours per day coverage during a winter storm event.

Priority 4

These roadways and parking lots may be closed for extended periods of time until resources are available to clear the roadway. Snow packed and icy conditions are acceptable, but may be treated with abrasive or abrasive/chemical combinations.

Affected Roadways: Roadways with less than 1000 AADT, parking lots and turnouts.

Coverage Time: Winter maintenance operations will be conducted during regularly scheduled work hours, and as resources are available.

Priority 5

Seasonal Roads

These roads will be closed in the fall when snow depth requires closure, and will not be reopened until spring weather conditions permit and UDOT Central Maintenance gives approval. Appropriate signing, closed gates and public notification will be accomplished.

Typical Affected Roadways: Roadways which because of their non-critical access nature are closed to traffic during the winter months.

Coverage Time: Determined by the appropriate region or district.

Additional Information

The Utah Department of Transportation will provide snow removal services on qualifying state roads. The following types of state roads automatically qualify for snow removal services:

1. The road is part of a rural free delivery route;
2. The road is a farm to market route;
3. The road is a required school bus route;
4. The road services an industrial area and/or complex;
5. The road services ten or more permanent families throughout the winter.

The removal of snow by State forces, except in emergencies, shall be confined with the limits of the highway right-of-way. The removal of the normal snowfall and windrows of plowed snow on private road approaches and driveways, both on and off the highway right-of-way, is the responsibility of the property owner. When clearing these approaches, the property owner shall not push or pile the snow onto the State right-of-way. Within towns and where curb and gutter exist, the normal parking areas adjacent to the travel lanes may be used for snow storage by State forces. If it is desired to remove this snow it will be the responsibility of the city, county, or the adjacent property owner. The State will not haul snow off the highway except on structures and in canyons where removal of the snow by other means is impractical. Other than roadways on the State system, snow removal services will not be provided for the following (except where provided through written agreement with the Utah Department of Transportation):

1. Sidewalks
2. Overhead crosswalk structures
3. Walkways attached to structures
4. Driveways
5. Parking lots
6. Roads not on the State System
7. Overhead vehicular structures not on the State System.

State highways leading to winter recreational areas may qualify for snow removal services based upon consideration of developed analytical criteria (See Appendix A). These criteria establish a procedure to equally evaluate all winter recreational areas throughout the State. Each winter recreational area will be evaluated individually on the basis of a benefit cost ratio and the resort facilities provided by the operator and/or their entrepreneurs.

Vehicles parked or abandoned in a manner which interferes with snow removal operations are subject to immediate removal. The Utah Highway Patrol or sheriff's offices may be contacted for removal or in extreme emergencies pursuant to Utah Code Section 72-7-105, UDOT may remove or order the removal of any vehicles, trailers or other installations which interfere with snow removal operations. Owners assume all risk of damage for vehicles abandoned or parked outside designated parking facilities.

Appendix A

To receive weekend and holiday snow removal services, a winter recreational area must meet a benefit cost ratio of at least 50, provide adequate parking area, and provide emergency accommodations.

To receive weekday services, in addition to the above requirements, the area must provide two of the following:

1. Lift capacity of 700,000 vertical transport feet/hour.
2. On-site lodging facilities.
3. On-site eating accommodations.
4. Gasoline, towing, and automotive services.

The criteria are detailed below:

1. Benefit cost Ratio - As used herein, this ratio is the quotient obtained by dividing the amount of money spent by recreational area users by the cost of providing snow removal operations on access roads. To qualify for snow removal services the benefit cost ratio "K" as determined by the following formula shall exceed 50:

$$K = \frac{NU}{7C}$$

N = Number of days of operation per week.

U = Average occupancy rate for each vehicle)x(ADT for the road during the skiing season)x(Length of season in days)x(Average amount spent at resort by skiers per day).

C = Average daily cost of providing snow removal services.

7 = The number of days in a week.

2. Resort Facilities - Each resort must have certain capabilities:
 - a. Capacity and Services: Snow removal based on benefit cost may be limited to weekends and holidays except where a winter recreational resort operator provides, or has available for other concessionaires, at least two of the following at the resort site:
 - (1) Lift capacity of 700,000 vertical transport feet/hour.
 - (2) On-site lodging accommodations for 5% of (ADT for the road during the skiing season) x (Average occupancy rate for each vehicle).
 - (3) On-site eating accommodations for 10% of (ADT for the road during the skiing season) x (Average occupancy rate for each vehicle).

- (4) Gasoline, towing and automotive services.
- b. Parking Facilities: The resort operator is to provide and plow a minimum of 200 square feet of private parking area (off State right-of-way) for each unit of ADT used in computing "K", regardless of the number of operating days per week, "N". The State will plow State access roads but not open them until the winter recreational area operator has plowed the private parking areas to the required square footage and opened any access roads off the State Highway System. Whenever the private parking area is not satisfactorily plowed, or the State access road is unduly obstructed by disabled private vehicles, or the snow plow turn around areas are obstructed by parked private vehicles, the State will close the State access roads to inbound traffic (except emergency vehicles).
- c. Emergency Accommodations: The recreational area operator is to provide adequate lodging and meal accommodations for emergencies.